Index

A

ADACHI, R. A. See Hedin, P. A., 229.

ADAMS, R. L., F. N. ANDREWS, J. C. ROGLER AND C. W. CARRICK. The protein requirement of 4-week-old chicks as affected by temperature, 121.

Adipose tissue and body composition in the rat, influence of a hypercaloric diet on, 187.

Agar, gelatinized starch or guar gum plus varying levels of water in diet, effect on growth and PER in rat, 18.

Alkaline phosphatase, relationship of calcium requirement of baby pig to, 7.

Amino acid(s), essential, nutritional factors influencing the efficiency of utilization of. Levels of nonessential nitrogen, 433.

— —, evaluation of FAO reference pattern in human nutrition. II. Studies with young women, 391.

— — imbalanced, threonine-induced, effect on distribution of isotope from DL-tryptophan-5-C^{14}, 142.

— — in FAO reference pattern, milk pattern and peanut pattern, nitrogen balances of young women fed, 459.

— — milk and sow's milk, electrophoretic and immunoelectrophoretic comparison of immature serum from piglets, 349.

— — mixtures, absorption of from the small intestine of the rat. I. Equimolar mixtures and those simulating egg albumin, casein and zein, 52.

— — requirements of children: minimal needs of threonine, valine and phenylalanine based on nitrogen balance method, 61.

— — supplementation, failure of to completely overcome the growth depression effect of raw soybean meal in chicks, 259.

— — synthetic diet to produce vitamin K deficiency, and cause of deficiency in male rats fed irradiated beef, 165.

ANDREWS, F. N. See Adams, R. L., 121.

Angina pectoris, polyunsaturated fatty acids in relation to total fatty acids in male and female patients with complaints of, 343.

Antibiotic supplementation, sulfiting, animal and vegetable diets, gastrointestinal gas production in rats as influenced by, 471.

Antioxidants, dietary, as related to vitamin E function, in the chick, 245.

Arsenic, cadmium and diet, effects on selenium metabolism in rat, 210.

Ascorbic acid and erythorbic acid, comparative metabolic response by the human to, 443.

B

BALTZER, BETTY V. See Miller, E. R., 7.

BARNES, RICHARD H., GRACE FIALA AND EVA KWONG. Methionine supplementation of processed soybeans in the rat, 278.

BARNES, RICHARD H. See Kwong, Eva, 312.

BAUMANN, C. A. See Ganther, H. E., 210, 408.

Bean, dehydrated red, and casein diets, effect on intestinal gas production in the rat, 229.

BENTON, D. A. See Wilson, Robert G., 142.

BERG, BENJAMIN N., ABNER WOLF AND HENRY S. SIMMS. Nutrition and longevity in the rat. IV. Food restriction and the radiculoneuropathy of aging rats, 439.

BERGER, S., M. RECHCIGL, JR., J. K. LOOSLI AND H. H. WILLIAMS. Protein quality and carotene utilization, 174.

BETHSOLD, G. ELEANOR. See Gubler, C. J., 332.

BIERI, J. G. See Krishnamurthy, S., 245.

Bile acids, effect of on egg production, serum cholesterol and egg cholesterol in hens, 253.

— —, dietary, effect on plasma cholesterol of the rat, 237.

Body and adipose tissue composition in the rat, influence of a hypercaloric diet on, 187.

BONETTI, E., AND F. STIRPE. Conditions affecting dietary liver necrosis and liver regeneration in rats, 179.

BORCHERS, RAYMOND. Supplementary methionine requirement of weanling rats fed soybean oil meal rations, 309.

BOSSHARDT, D. K. See Howe, E. E., 161, 171.

BRENNER, RODOLFO R., OSVALDO MERCURI AND MARIA E. DE TOMAS. Influence of dietary medium-chain fatty acids on rat lipid composition. I. *cis*-2-Octenoic acid as precursor of linoleic acid, 203.

C

Ca^{45} and Sr^{45} absorption from solid and liquid food at various levels of alimentary tract of rat, 155.

Cadmium, arsenic and diet, effects on selenium metabolism in rat, 210.

Calcium and ferrous carbonates, effect of supplements on rats fed meat, 415.

— and other ions in the rachitic chick, effect of vitamin D_3 on the intestinal absorption of, 69.

—, high-, diet, curative effect of on senile osteoporosis, 299.

— requirement of the baby pig, 7.

Calculi, calcium citrate in the rat, effect of carbohydrate, proteins and phosphate on the occurrence of, 137.

CALLAHAN, JACQUELINE A. See Kirksey, Avanelle, 43.

Calories, some relationships between restriction of and body weight in the rat. III. Levels of pyridine nucleotides and incorporation of acetate-1-C^{14} into lipids, *in vivo* and *in vitro*, 91.

CALVERT, C. C. See Scott, M. L., 105.

Carbohydrate, protein and fats (dietary), influence of varying levels in nutrition of the rat, 149.

Carotene utilization and protein quality, in the rat, 174.

CARRICK, C. W. See Adams, R. L., 121.
CARROLL, H. W. See Peckham, S. C., 187.
Casein and dehydrated red bean diet, effects on intestinal gas production in the rat, 229.
Cats, vitamin E deficiency in, 303.
Children, amino acid requirements of, 61.
Cholesterol and influence of varying levels of dietary protein, carbohydrate and fat, in the rat, 149.
—, plasma, effect of dietary bile acids on, in the rat, 237.
—, —, in the mouse, effect on thyroid-active substances on, 161.
Cholesterol, serum, egg cholesterol and egg production in hens, effect of bile acids on, 253.
—, —, levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, effect of feeding different fat mixtures providing the same amount of linoleic acid, 323.
— — levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, effect of feeding fat blends on, 317.
Cholesterolemia and cardiovascular sudanophilia in rats fed sardine mixtures, 397.
COLLENTINE, GEORGE E., JR. See Quick, Armand J., 28.
COLLINSON, EDNA. See Moore, T., 415.
CONSTABLE, B. J. See Moore, T., 415.
Cottonseed oil and peanut (groundnut) fat containing different levels of linoleic acid, fed as fat blends, effect on serum cholesterol levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, 317.
Copper loss in swine fed excess zinc, liver iron depletion without, 225.
CORRADINO, R. A., AND H. E. PARKER. Magnesium and thyroid function in the rat, 455.
COX, DENNIS H., AND OTHO M. HALE. Liver iron depletion without copper loss in swine fed excess zinc, 225.
Cystine, evidence of a specific effect of in the prevention of nutritional muscular dystrophy in vitamin E-deficient chicks, 105.

D

DALDERUP, L. M. See Pol G., 343.
DAVIS, G. K. See Feaster, J. P., 369.
DAVIS, P. N., L. C. NORRIS AND F. H. KRATZER. Interference of soybean proteins with the utilization of trace minerals, 217.
DELHUMEAU, GRACIELA, GUADALUPE VELEZ PRATT AND CARLOS GITLER. The absorption of amino acid mixtures from the small intestine of the rat. I. Equimolar mixtures and those simulating egg albumin, casein and zein, 52.
DENTON, ARNOLD E. See Keane, Kenneth W., 18.
DE TOMAS, MARIA E. See Brenner, Rodolfo R., 203.
Dietary density, influence of mechanical alteration of on energy available for chick growth, 428.
Diets, animal and vegetable, sulfiting and antibiotic supplementation, gastrointestinal gas production in rats as influenced by, 471.
—, meat, effect of supplements of calcium and ferrous carbonates on rats fed, 415.
DL-Tryptophan-5-C^{14}, effect of threonine-induced amino acid imbalance on the distribution of isotope from, 142.
DODDS, MARY J. See Wang, Marian M., 443.
Drosophila, axenically cultured, relationships between protein supplies and B-vitamin requirements in, 355.
DYMSZA, H. A. See Miller, S. A., 397.
Dystrophy, muscular, nutritional, evidence of a specific effect of cystine in the prevention of in vitamin E-deficient chicks, 105.

E

EDWARDS, H. M., JR., VIVIAN JONES AND J. E. MARION. Effect of bile acids on egg production, serum cholesterol and egg cholesterol in hens, 253.
EDWARDS, H. M., JR. See Marion, J. E., 23.
Energy available, influence of mechanical alteration of dietary density on, for chick growth, 428.
ENGEL, R. W. See Ku, Edmond C. -c., 433.
ENTENMAN, C. See Peckham, S. C., 187.
Erythorbic acid and ascorbic acid, comparative metabolic response by the human to, 443.
Escherichia coli and the effect of ammonia on efficiency of assimilation of essential fatty acids, 433.

F

FAO amino acid reference pattern in human nutrition. II. Studies with young women, 391.
FAO reference pattern, milk pattern and peanut pattern, nitrogen balances of young women fed amino acids in, 459.
Fat(s), carbohydrate and protein (dietary), influence of varying levels in nutrition of the rat, 149.
— depot (epididymal) of the rat, a function of number of fat cells in tissue, 187.
—, dietary, role in utilization of protein. I. Quality and quantity of fat, 373.
—, —, role in utilization of protein. II. Essential fatty acids, 381.
—, edible, influence of short-term heating on composition of, 127.
— effect of feeding blends on serum cholesterol levels in monkeys, and on liver cholesterol concentration in cholesterol-fed rats, 317.
—, effect of feeding different mixtures providing the same amount of linoleic acid, on serum cholesterol levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, 323.
Fatty acid(s), essential, and role of dietary fat in utilization of protein, 381.
— —, medium-chain, dietary, influence on rat lipid composition. I. *cis*-2-Octenoic acid as precursor of linoleic acid, 203.
— —, polyunsaturated, in relation to total fatty acids in male and female patients with complaints of angina pectoris, 343.
FEASTER, J. P., AND G. K. DAVIS. Effect of low protein intake on the deposition and placental transfer of sulfur-35, 369.

Ferrous carbonates and calcium supplements, effect on rats fed meat, 415.
FIALA, GRACE. See Barnes, Richard H., 278.
FIALA, GRACE. See Kwong, Eva, 312.
Fish, flour, factors influencing nutritional value of. I. Effects of extraction with chloroform or ethylene dichloride, 97.
FISHER, HANS. See Summers, J. D., 465.
FISHER, KATHERINE H. See Wang, Marian M., 443
FOSTER, WILLIAM C. See McClendon, J. F., 299.

G

GANTHER, H. E., AND C. A. BAUMANN. Selenium metabolism. I. Effects of diet, arsenic and cadmium, 210.
GANTHER, H. E., AND C. A. BAUMANN. Selenium metabolism. II. Modifying effects of sulfate, 408.
Gas, gastrointestinal, production in rats as influenced by some animal and vegetable diets, sulfiting, and antibiotic supplementation, 471.
— production in rats, effect of diet and time of feeding on, 229.
GERSHOFF, S. N., AND S. A. NORKIN. Vitamin E deficiency in cats, 303.
GERSHON-COHEN, J. See McClendon, J. F., 299.
GITLER, CARLOS. See Delhumeau, Graciela, 52.
GOLDBLITH, S. A. See Miller, S. A., 397.
GUBLER, C. J., AND G. ELEANOR BETHSOLD. Studies on the physiological functions of thiamine. II. Effects of sorbitol on growth and α-ketoacid metabolism in thiamine-deficient and antagonist-treated rats, 332.
Gum, guar, gelatinized starch or agar plus varying levels of water in diet, effect on growth and PER in rat, 18.
GUSS, P. L. See Halverson, A. W., 459.

H

HALE, OTHO M. See Cox, Dennis H., 225.
HALVERSON, A. W., P. L. GUSS AND O. E OLSON. Effect of sulfur salts on selenium poisoning in the rat, 459.
HARRIS, CHERYL L. See Swendseid, Marian E., 391.
HARRIS, LORIN E. See Moir, R. J., 285.
HARTLEY, FREDERICK G. See Lee, Melvin, 91.
HEDIN, P. A. Gastrointestinal gas production in rats as influenced by some animal and vegetable diets, sulfiting, and antibiotic supplementation, 471.
HEDIN, P. A., AND R. A. ADACHI. Effect of diet and time of feeding on gastrointestinal gas production in rats, 229.
Hemagglutinin fractions, purified, isolated from *Phaseolus vulgaris*, inhibition of growth of rats by, 109.
HENDERSON, L. M. See Wilson, Robert G., 142.
HOEFER, J. A. See Miller, E. R., 7.
HONAVAR, P. M., CHENG-VEN SHIH AND IRVIN E. LIENER. Inhibition of the growth of rats by purified hemagglutinin fractions isolated from *Phaseolus vulgaris*, 109.
HOWE, E. E., AND C. F. HUTCHISON. Effect of dietary bile acids on plasma cholesterol of the rat, 237.
HOWE, E. E., AND D. K. BOSSHARDT. Anti-bacterial agents and the anti-cholic acid effect of lithocholic and hyodeoxycholic acids in the mouse, 171.
HOWE, E. E., AND D. K. BOSSHARDT. Effect of thyroid-active substances on plasma cholesterol in the mouse, 161.
Human nutrition, evaluation of FAO amino acid reference pattern in. II. Studies with young women, 391.
HUSSEY, CLARA V. See Quick, Armand J., 28.
HUTCHISON, C. F. See Howe, E. E., 237.
Hyodeoxycholic and lithocholic acids in the mouse, anti-bacterial agents and anti-cholic acid effect of, 171.
Hypercholesterolemia in mice, influence of lithocholic and hyodeoxycholic acids in counteracting cholic acid effect on, 171.

I

Iron, liver, depletion without copper loss in swine fed excess zinc, 225.
— metabolism studies, sheep erythrocyte life span in estimation of hemoglobin turnover in, 264.
Irradiation of beef and the cause of vitamin K deficiency in male rats, 165.

J

JAGANNATHAN, S. N. Effect of feeding different fat mixtures providing the same amount of linoleic acid, on serum cholesterol levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, 323.
JAGANNATHAN, S. N. Effect of feeding fat-blends of hydrogenated ground-nut (peanut) fat and cottonseed oil containing different levels of linoleic acid on serum cholesterol levels in monkeys (*Macacus radiata*) and liver cholesterol concentration in cholesterol-fed rats, 317.
JENSEN, LEO S. See Reddy, C. V., 428.
JENSEN, LEO S. See Saxena, H. C., 241, 259.
JOHNSON, B. CONNOR. See Mameesh, M. S., 165.
JONES, VIVIAN. See Edwards, H. M., Jr., 353.
JOWSEY, JENIFER. See McClendon, J. F., 299.
JUDD, JOSEPH T., AND G. MATRONE. Sheep erythrocyte life span in estimation of hemoglobin turnover in iron metabolism studies, 264.

K

KEANE, KENNETH W., CHARLES J. SMUTKO, CARL H. KRIEGER AND ARNOLD E. DENTON. The addition of water to purified diets and its effect upon growth and protein efficiency ratio in the rat, 18.
KEMMERER, ARTHUR R. See Schneider, Donald L., 403.
KING, KENDALL W. See Ku, Edmond, C. -c., 433.
KIRK, MARILYN C., NORMA METHENY AND MAY S. REYNOLDS. Nitrogen balances of young women fed amino acids in the FAO reference pattern, the milk pattern, and the peanut pattern, 459.

KIRKSEY, AVANELLE, RUTH L. PIKE AND JACQUELINE A. CALLAHAN. Some effects of high and low sodium intakes during pregnancy in the rat. II. Electrolyte concentrations of maternal plasma, muscle, bone and brain and of placenta, amniotic fluid, fetal plasma and total fetus in normal pregnancy, 43.

KIRKSEY, AVANELLE, AND RUTH L. PIKE. Some effects of high and low sodium intakes during pregnancy in the rat. I. Food consumption, weight gain, reproductive performance, electrolyte balances, plasma total protein fractions in normal pregnancy, 33.

KOBAYASHI, KATSUMI. See Nakagawa, Itsiro, 61.

KRATZER, F. H. See Davis, P. N., 217.

KRIEGER, CARL H. See Keane, Kenneth W., 18.

KRISHNAMURTHY, S., AND J. G. BIERI. Dietary antioxidants as related to vitamin E function, 245.

KRITCHEVSKY, DAVID, SHIRLEY A. TEPPER AND JOHN LANGAN. Influence of short-term heating on composition of edible fats, 127.

KU, EDMOND C. -C., KENDALL W. KING AND R. W. ENGEL. Nutritional factors influencing the efficiency of utilization of essential amino acids: level of nonessential nitrogen, 433.

KURNICK, ALLEN A. See Schneider, Donald L., 403.

KWONG, EVA, RICHARD H. BARNES AND GRACE FIALA. Intestinal absorption of nitrogen and methionine from processed soybeans in the rat, 312.

KWONG, EVA. See Barnes, Richard H., 278.

L

LANGAN, JOHN. See Kritchevsky, David, 127.

LECCE, J. G., D. O. MORGAN AND G. MATRONE. Immunoelectrophoretic serum protein changes from birth to maturity in piglets fed different diets, 349.

LEE, MELVIN, FREDERICK G. HARTLEY AND S. P. LUCIA. Some relationships between caloric restriction and body weight in the rat. III. Levels of pyridine nucleotides and incorporation of acetate-1-C^{14} into lipids, *in vivo* and *in vitro*, 91.

LENGEMANN, F. W. See Marcus, C. S., 155.

LIENER, IRVIN E. See Honavar, P. M., 109.

Linoleic acid content of adipose tissue from cats with steatitis, 303.

— —, *cis*-2-octenoic acid as precursor of, 203.

— —, effect of feeding fat blends of hydrogenated ground nut (peanut) fat and cottonseed oil containing different levels of, on serum cholesterol levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, 317.

— — level in different fat mixtures, effect on serum cholesterol levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, 323.

Lipid(s), composition of in rat, influence of dietary medium-chain fatty acids on. I. *cis*-2-Octenoic acid as precursor of linoleic acid, 203.

—, liver, changes in the chick, observations on the influence of diet and age upon, 23.

— metabolism in man, studies. I. Polyunsaturated fatty acids in relation to total fatty acids in male and female patients of different ages, with complaints of angina pectoris, 343.

—, levels of pyridine nucleotides and incorporation of acetate-1-C^{14} into, 91.

Longevity and nutrition in the rat. IV. Food restriction and radiculoneuropathy of aging rats, 439.

LOOSLI, J. K. See Berger, S., 174.

Lithocholic and hyodeoxycholic acids in the mouse, anti-bacterial agents and anti-cholic acid effect of, 171.

Liver necrosis and liver regeneration in rats, conditions affecting dietary, 179.

LUCIA, S. P. See Lee, Melvin, 91.

LUECKE, R. W. See Miller, E. R., 7.

LUSHBOUGH, C. H. See Siedler, A. J., 149.

M

Magnesium and thyroid function in the rat, 455.

MALONEY, PATRICIA A. See Siedler, A. J., 149.

MAMEESH, M. S., V. C. METTA, P. B. RAMA RAO AND B. CONNOR JOHNSON. On the cause of vitamin K deficiency in male rats fed irradiated beef and the production of vitamin K deficiency using an amino acid synthetic diet, 165.

MARCUS, C. S., AND F. W. LENGEMANN. Absorption of Ca^{45} and Sr^{85} from solid and liquid food at various levels of the alimentary tract of the rat, 155.

MARION, J. E., AND H. M. EDWARDS, JR. Observations on the influence of diet and age upon liver lipid changes in the chick, 23.

MARION, J. E. See Edwards, H. M., Jr., 353

MARTIN, P. E. N. See Moore, T., 415.

MATRONE, G. See Judd, Joseph T., 264.

MATRONE, G. See Lecce, J. G., 349.

McCLENDON, J. F., JENIFER JOWSEY, J. GERSHON-COHEN AND WILLIAM C. FOSTER. The curative effect of a high-calcium diet on senile osteoporosis, 299.

McGINNIS, JAMES. See Reddy, C. V., 428.

McGINNIS, JAMES. See Saxena, H. C., 241, 259.

MENDELSOHN, LEAH. The action of vitamin D on certain aspects of phosphorus metabolism in oral tissues of normal and vitamin D-deficient rats, 198.

MERCURI, OSVALDO. See Brenner, Rodolfo R., 203.

MERRILL, LOUIS H. See Reddy, C. V., 428.

METHENY, NORMA. See Kirk, Marilyn C., 459.

Methionine and nitrogen, intestinal absorption of from processed soybeans, in the rat, 312.

—, excessive dietary, pathological effects of in growing rats, 81.

—, supplementary, requirement of weanling rats fed soybean meal rations, 309.

— supplementation of processed soybeans, in the rat, 278.

METTA, V. C. See Mameesh, M. S., 165.

MEYKNECHT, E. A. M. See Pol, G., 343.

MIDDLETON, E. J., AND A. B. MORRISON. Vitamin absorption studies. II. The utilization of riboflavin and thiamine given orally or parenterally at periodic intervals, 115.

MIDDLETON, E. J. See Morrison, A. B., 97.

MILLER, E. R., D. E. ULLREY, C. L. ZUTAUT, BETTY V. BALTZER, D. A. SCHMIDT, J. A. HOEFER AND R. W. LUECKE. Calcium requirement of the baby pig, 7.
MILLER, S. A., H. A. DYMSZA. AND S. A. GOLDBLITH. Cholesterolemia and cardiovascular sudanophila in rats fed sardine mixtures, 397.
Milk, amino acid and sow's, electrophoretic and immunoelectrophoretic comparison of immature serum from piglets fed, 349.
Mineral mixtures and B vitamins, effects upon growth and rumen function of ruminants fed purified diets, 269.
Minerals, trace, interference of soybean proteins with utilization of, 217.
Moisture content of diet and effect on PER and growth in the rat, 18.
MOIR, R. J., AND LORIN E. HARRIS. Ruminal flora studies in the sheep. X. Influence of nitrogen intake upon ruminal function, 285.
Monkeys, serum cholesterol in, and liver cholesterol concentration in cholesterol-fed rats, effect of feeding fat blends, 317.
MOORE, T., I. M. SHARMAN, B. J. CONSTABLE, K. R. SYMONDS, P. E. N. MARTIN AND EDNA COLLINSON. Meat diets: effect of supplements of calcium and ferrous carbonates on rats fed meat, 415.
MORGAN, D. O. See Lecce, J. G., 349.
MORRISON, A. B. See Middleton, E. J., 115.
MORRISON, A. B., Z. I. SABRY AND E. J. MIDDLETON. Factors influencing the nutritional value of fish flour. I. Effects of extraction with chloroform or ethylene dichloride, 97.

N

NAISMITH, DONALD J., AND RAHMAT ULLAH QURESHI. The role of dietary fat in the utilization of protein. I. Quality and quantity of fat, 373.
NAISMITH, DONALD J. The role of dietary fat in the utilization of protein. II. The essential fatty acids, 381.
NAKAGAWA, ITSIRO, TETSUZO TAKAHASHI, TAKESHI SUZUKI AND KATSUMI KOBAYASHI. Amino acid requirements of children: minimal needs of threonine, valine and phenylalanine based on nitrogen balance method, 61.
Nitrogen and methionine, intestinal absorption of from processed soybeans, in the rat, 312.
— balances of young women fed amino acids in the FAO reference pattern, the milk pattern, and the peanut pattern, 459.
—, influence of intake upon ruminal function in the sheep, 285
—, level of nonessential. Nutritional factors influencing the efficiency of utilization of, 433.
NORKIN, S. A. See Gershoff, S. N., 303.
NORRIS, L. C. See Davis, P. N., 217.

O

OKUDA, KUNIO. Relationship between intake of vitamin B_{12} and its storage by the kidney in the rat, 131.
OLSON, O. E. See Halverson, A. W., 459.
Osteoporosis, senile, curative effect of a high-calcium diet on, 299.
Oxythiamine and pyrithiamine studies in physiological functions of thiamine, in the rat, 332.

P

PARKER, H. E. See Corradino, R. A., 455.
Peanut (groundnut) fat and cottonseed oil containing different levels of linoleic acid, fed as fat blends, effect on serum cholesterol levels in monkeys and liver cholesterol concentration in cholesterol-fed rats, 317.
PECKHAM, S. C., C. ENTEMANN AND H. W. CARROLL. The influence of a hypercaloric diet on gross body and adipose tissue composition in the rat, 187.
Penicillin, dietary, and absorption of nitrogen and methionine from processed soybeans, in the rat, 312.
Phaseolus vulgaris, inhibition of growth of rats by purified hemagglutinin fractions isolated from, 109.
Phenylalanine, valine and threonine, minimal needs of for children, based on nitrogen balance method, 61.
Phosphorus metabolism in oral tissues of normal and vitamin D-deficient rats, action of vitamin D on certain aspects of, 198.
—, relationship of calcium requirement of baby pig to, 7.
PIKE, RUTH L. See Kirksey, Avanelle, 33, 43.
POL, G., L. M. DALDERUP AND E. A. M. MEYKNECHT. Studies in relation to lipid metabolism in man. I. Polyunsaturated fatty acids in relation to total fatty acids in male and female patients of different ages, with complaints of angina pectoris, 343.
PRATT, GUADALUPE VELEZ. See Delhumeau, Graciela, 52.
Protein, carbohydrate and fats (dietary), influence of varying levels in nutrition of the rat, 149.
— -depleted chicken, nutritional requirements of. III. Protein needs and utilization during repletion, 461.
— efficiency ratio and growth in the rat, effect of addition of water to purified diets on, 18.
—, immunoelectrophoretic serum, changes from birth to maturity in piglets fed different diets, 349.
—, level, dietary, influence on chick growth depression by raw soybean meal, 241.
—, low, intake, effect on the deposition and placental transfer of sulfur-35, in the rat, 369.
— requirement of 4-week-old chicks as affected by temperature, 121.
—, role of dietary fat in utilization of. I. Quality and quantity of fat, 373.
—, role of dietary fat in utilization of. II. Essential fatty acids, 381.
— supplies and B-vitamin requirements, relationships between in axenically cultured *Drosophila*, 355.
— quality and carotene utilization in rat, 174.
Protein(s), soybean, interference of with utilization of trace minerals, 217.

Pyridine nucleotides, levels of and incorporation of acetate-1-C^{14} into lipids, *in vivo* and *in vitro*, relationships between caloric restriction and body weight in rat, 91.
Pyrithiamine and oxythiamine studies in physiological functions of thiamine, in the rat, 332.

Q

Quick, Armand J., George E. Collentine, Jr. and Clara V. Hussey. Vitamin K requirements of the growing pup, 28.
Qureshi, Rahmat Ullah. See Naismith, Donald J., 373.

R

Radiculoneuropathy of aging rats, effect of food restriction on, 439.
Rama Rao, P. B. See Mameesh, M. S., 165.
Rechcigl, M., Jr. See Berger, S., 174.
Reddy, C. V., Leo S. Jensen, Louis H. Merrill and James McGinnis. Influence of mechanical alteration of dietary density on energy available for chick growth, 428.
Restriction of food and radiculoneuropathy of aging rats, 439.
Reynolds, May S. See Kirk, Marilyn C., 459.
Riboflavin and thiamine, utilization of when given orally or parenterally at periodic intervals, 115.
Rice, M. S. See Siedler, A. J., 149.
Rogler, J. C. See Adams, R. L., 121.
Ruminal flora studies in the sheep. X. Influence of nitrogen intake upon ruminal function, 285.

S

Sabry, Z. I. See Morrison, A. B., 97.
Sardine mixtures, cholesterolemia and cardiovascular sudanophilia in rats fed, 397.
Saxena, H. C., Leo S. Jensen and James McGinnis. Failure of amino acid supplementation to completely overcome the growth depression effect of raw soybean meal in chicks, 259.
Saxena, H. C., Leo S. Jensen and James McGinnis. Influence of dietary protein level on chick growth depression by raw soybean meal, 241.
Schmidt, D. A. See Miller, E. R., 7.
Schneider, Donald L., Allen A. Kurnick, Mitchell G. Vavich and Arthur R. Kemmerer. Delay of sexual maturity in chickens by *Sterculia foetida* oil, 403.
Schweigert, B. S. See Siedler, A. J., 149.
Scott, M. L., and C. C. Calvert. Evidence of a specific effect of cystine in the prevention of nutritional muscular dystrophy in vitamin E-deficient chicks, 105.
Selenium, factor 3-active and liver necrosis in rat, 179.
— metabolism. I. Effects of diet, arsenic and cadmium in rat, 210.
— —. II. Modifying effects of sulfate, in the rat, 408.
— poisoning in rat, effect of sulfur salts on, 459.
Sexual maturity, delay of in chickens by *Sterculia foetida* oil, 403.
Sharman, I. M. See Moore, T., 415.
Shih, Cheng-Ven. See Honavar, P. M., 109.
Siedler, A. J., M. S. Rice, Patricia A. Maloney, C. H. Lushbough and B. S. Schweigert. The influence of varying levels of dietary protein, carbohydrate and fats in the nutrition of the rat, 149.
Simms, Henry S. See Berg, Benjamin N., 439.
Smutko, Charles J. See Keane, Kenneth W., 18.
Sodium, effects of high and low intakes during pregnancy in the rat. I. Food consumption, weight gain, reproductive performance, electrolyte balances, plasma total protein and protein fractions in normal pregnancy, 33.
—, effects of high and low intakes during pregnancy in the rat. II. Electrolyte concentrations of maternal plasma, muscle, bone and brain and of placenta, amniotic fluid, fetal plasma and total fetus in normal pregnancy, 43.
Soybean meal, raw, influence of dietary protein level on chick growth depression by, 241.
Sorbitol, effects on growth and α-ketoacid metabolism in thiamine-deficient and antagonist-treated rats, 332.
Sr^{85} and Ca^{45} absorption from solid and liquid food at various levels of alimentary tract of rat, 155.
Starch gelatinized, agar, or guar gum plus varying levels of water in diet, effect on growth and PER in rat, 18.
Stekol, Jakob A., and John Szaran. Pathological effects of excessive methionine in the diet of growing rats, 81.
Sterculia foetida oil, delay of sexual maturity in chickens by, 403.
Steatitis in cats fed diets deficient in vitamin E and containing tuna oil, 303.
Stirpe, F. See Bonetti, E., 179.
Sudanophilia, cardiovascular, and cholesterolemia in rats fed sardine mixtures, 397.
Sulfiting, antibiotic supplementation, animal and vegetable diets, gastrointestinal gas production in rats as influenced by, 471.
Sulfur-35, effect of low protein intake on the deposition and placental transfer of, in the rat, 369.
Sulfur salts, effect on selenium poisoning in the rat, 459.
Summers, J. D., and Hans Fisher. Nutritional requirements of the protein-depleted chicken. III. Protein needs and utilization during repletion, 465.
Suzuki, Takeshi. See Nakagawa, Itsiro, 61.
Swendseid, Marian E., Cheryl L. Harris and Stewart G. Tuttle. An evaluation of the FAO amino acid reference pattern in human nutrition. II. Studies with young women, 391.
Symonds, K. R. See Moore, T., 415.
Szaran, John. See Stekol, Jakob A., 81.

T

Takahashi, Tetsuzo. See Nakagawa, Itsiro, 61.
Temperature, effect on protein requirement of 4-week-old chicks, 121.
Tepper, Shirley A. See Kritchevsky, David, 127.

Thiamine and riboflavin, utilization of when given orally or parenterally at periodic intervals, 115.
—, physiological functions of. II. Effects of sorbitol on growth and α-ketoacid metabolism in thiamine-deficient and antagonist-treated rats, 332.
Threonine-induced amino acid imbalance, effect on distribution of isotope from DL-tryptophan-5-C^{14}, 142.
—, valine and phenylalanine, minimal needs of for children based on nitrogen balance method, 61.
Thyroid-active substances, effect of on plasma cholesterol in the mouse, 161.
— function and magnesium, in the rat, 455.
Tuna oil-containing diets deficient in vitamin E, and steatitis in cats, 303.
TUTTLE, STEWART G. See Swendseid, Marian E., 391.

U

ULLREY, D. E. See Miller, E. R., 7.
Urolithiasis in the rat. II. Effects of proteins, carbohydrate and phosphate on the occurrence of calcium citrate stones, 137.

V

Valine, threonine and phenylalanine, minimal needs of for children, based on nitrogen balance method, 61.
VAN REEN, ROBERT. Urolithiasis in the rat. III. Effects of proteins, carbohydrate and phosphate on the occurrence of calcium citrate stones, 137.
VAVICH, MITCHELL G. See Schneider, Donald L., 403.
VEDDER, EDWARD BRIGHT — a biographical sketch, 1.
Vitamin absorption studies. II. Utilization of riboflavin and thiamine given orally or parenterally at periodic intervals, 115.
Vitamin(s) B and mineral mixtures, effects upon growth and rumen function of ruminants fed purified diets, 269.
— B requirements and protein supplies, relationships between in axenically cultured *Drosophila*, 355.
— B_{12}, relationship between intake of and its storage by the kidney in the rat, 131.
— D, action of on certain aspects of phosphorus metabolism in oral tissues of normal and vitamin D-deficient rats, 198.
— D_3 and the intestinal absorption of calcium and other ions in the rachitic chick, 69.
— E and liver necrosis in the rat, 179.
— E deficiency in cats, 303.
— E-deficient chicks, evidence of a specific effect of cystine in prevention of nutritional muscular dystrophy in, 105.
— E function, dietary antioxidants as related to, 245.
— K deficiency, cause of in male rats fed irradiated beef and production of deficiency using amino acid synthetic diet, 165.
—K requirements of growing pup, 28.

W

WANG, MARIAN M., KATHERINE H. FISHER AND MARY J. DODDS. Comparative metabolic response to erythorbic acid and ascorbic acid by the human, 443.
WASSERMAN, R. H. Studies on vitamin D_3 and the intestinal absorption of calcium and other ions in the rachitic chick, 69.
WILLIAMS, H. H. See Berger, S. 174.
WILSON, ROBERT G., JOSEPH S. WORTHAM, D. A. BENTON AND L. M. HENDERSON. Effect of threonine-induced amino acid imbalance on the distribution of isotope from DL-tryptophan-5-C^{14}, 142.
WILLIAMS, ROBERT R. Edward Bright Vedder — a biographical sketch, 1.
WOLF, ABNER. See Berg, Benjamin N., 439.
Women, young, fed amino acids in FAO reference pattern, milk pattern and peanut pattern, nitrogen balances of, 459.
WORTHAM, JOSEPH S. See Wilson, Robert G., 142.

Z

Zinc, excess, liver iron depletion with copper loss in swine fed, 225.
ZUTAUT, C. L. See Miller, E. R., 7.